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## Lesson Overview

CERTs support emergency services by preparing for disasters before they occur and by responding, when necessary, to immediate needs in their neighborhoods or workplaces after a disaster occurs.

### Key Points:

CERTs help prepare by:

- Identifying and reducing potential hazards in the home and workplace.
- Developing a family disaster plan.
- Assembling a disaster supply kit.

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## Family and Workplace Preparedness

Family and workplace preparedness can be broken into two main areas:

- **Hazard mitigation:** Identifying potential hazards in your home and workplace and taking steps to remove or reduce those hazards.
- **Disaster preparations:** Making plans and preparations that will enable you to respond quickly in the event of a disaster.

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## Hazard Mitigation

Hazard mitigation involves three steps:

1. Determining your community's probable disaster threats.
2. Identifying potential hazards in your home and workplace.
3. Taking preventive action to reduce the hazards.

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## Mitigation Step 1: Determine Disaster Threats

Knowing what types of disasters your community could experience is an important first step. The nature of the disaster threat will help you identify any potential hazards. For example:

- In a wildfire area, flammable roofing materials and brush and vegetation near your home are potential hazards.
  - In an earthquake-prone area, unsecured objects like a bookshelf or filing cabinet are a danger.
  - In a flood-prone area, utilities below flood level can cause problems.
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### Determining Disaster Threats

Disaster threats can include natural, manmade, and technological hazards. Identifying probable events in your community and their potential impact involves asking such questions as:

- Am I in a floodplain, near a fault, or near a volcano?
- Is my region prone to seasonal hazards such as hurricanes, tornadoes, or winter storms?
- Are nearby sites likely targets for terrorism?
- Am I near a nuclear or chemical plant that could release hazardous materials?

Be sure to consider natural, manmade, and technological hazards.

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### Mitigation Step 2: Identify Hazards

Most buildings have some features that could become hazards during a disaster. Hazards in the home and workplace fall into two main categories:

- **Structural hazards:** Hazards that are a function of the building, roof, or other components.
  - **Nonstructural hazards:** Hazards related to fixtures and building contents.
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#### Structural Hazards

The types of structural hazards and their significance will vary with the:

- Age of the structure.
  - Type of construction.
  - Type of disaster.
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#### Nonstructural Hazards

In any type of structure, there is also a risk from nonstructural hazards. Nonstructural elements include any items installed after the supporting structure of the building is complete.

Nonstructural hazards often relate to:

- Utility fixtures.
- Building contents.

Sometimes these elements are hazards in their own right. Others can become hazards during a particular natural, technological, or manmade event.

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### **Nonstructural Hazard: Utility Fixtures**

Fixtures that connect gas, electric, and water lines to the building can create hazards. Examples include:

- Broken gas line connections from water heaters or ranges displaced by shaking, water, or wind.
  - Electric shock hazards from displaced appliances and office equipment.
  - Fire hazards from faulty wiring, overloaded electrical sockets or extension cords, and frayed electrical cords.
  - Utility boxes and electrical outlets below flood level in flood zones.
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### **Nonstructural Hazard: Unsecured Building Contents**

Unsecured building contents can create hazards and cause damage when they fall. This hazard is especially significant in areas subject to earthquakes.

Examples of hazards from building contents include:

- Unsecured furniture, appliances, and heavy objects on tables.
  - Items on open shelves.
  - Mirrors and pictures on walls—especially when above a sofa or bed.
  - Breakable items or chemicals stored in unfastened cabinets.
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### **Mitigation Step 3: Take Preventive Action**

After you have identified potential problems, you can take action to correct or reduce them. Appropriate actions will depend on the type of hazard, and the severity of the problem.

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#### **Mitigating Structural Hazards:**

- Bolt older houses to the foundation.
  - Strap mobile homes to the slab.
  - Strap propane tanks.
  - Raise utilities above the level of flood risk.
  - Repair unstable chimney, roof, and foundation materials.
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#### **Mitigating Nonstructural Hazards:**

- Anchor furniture such as bookshelves, filing cabinets, and hutches to the wall.
  - Strap water heater to wall studs.
  - Install flexible pipe fittings to avoid gas or water leaks.
  - Secure appliances and office equipment in place with industrial-strength Velcro®.
  - Secure cabinet doors with childproof fasteners.
  - Move heavy objects to lower shelves and cabinets.
  - Replace picture hangers with “earthquake resistant” hooks.
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### **Disaster-Specific Information**

More detailed, disaster-specific information about hazards is included in *Are You Ready?*

You can also find disaster-specific information at FEMA's web page, *Talking About Disasters*.

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## Disaster Preparations

How prepared are you and your family for a disaster? The first step is to develop a comprehensive plan detailing how you will respond to various hazards.

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### Checklist for Home Preparedness

- **Plan**
    - Develop an escape plan that covers every room in the house and considers the needs of children and physically challenged individuals.
    - Pick two places to meet (near home and outside the neighborhood).
    - Choose an out-of-state "check-in contact" for everyone to call.
    - Identify an evacuation destination.
    - Plan two evacuation routes (in case your primary route is impassable).
    - Identify the nearest shelter location.
    - Plan how to take care of your pets (not allowed in shelters).
    - Find safe places in the home for each type of disaster.
    - Make sure that you have adequate insurance coverage.
    - Inventory your property to help prove the value of items damaged or destroyed in a disaster.
    - Review your plan periodically and update, if necessary.
  - **Practice**
    - Discuss the plan with all family members.
    - Conduct family practices (fire drills, taking shelter, following evacuation routes).
    - Make sure that family members know where fire extinguishers are and how to use them.
    - Show responsible family members how and when to shut off water, gas, and electricity at main switches.
    - Quiz children every six months to be sure that they remember the plan.
  - **Prepare**
    - Post emergency numbers by every phone.
    - Locate and label utility shutoffs.
    - Install smoke alarms on every level (especially near bedrooms).
    - Test smoke alarms monthly, change batteries twice a year.
    - Check fire extinguishers according to manufacturer's instructions.
    - Prepare a safe room for sheltering in place.
    - Photocopy vital documents. Keep originals in a safe deposit box, store one copy at home, and give a copy to someone out of town.
    - Assemble a disaster supply kit.
  - **Coordinate with Neighbors**
    - Plan how neighbors can work together after a disaster.
    - Identify neighbors' skills (e.g., medical or technical).
    - Identify neighbors with special needs (e.g., elderly, disabled) who may need help in an emergency.
    - Make plans for child care in case parents can't get home.
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## Assembling a Disaster Supply Kit

Assembling the supplies that you might need following a disaster is an important addition to your family disaster plan. A disaster supply kit should include:

- Basic disaster supplies.
- Evacuation supplies stored in an easy-to-carry container.
- Home disaster supplies for sheltering in place.

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### Disaster Supply Kit Checklist

- **Basic Kit**
  - Portable, battery-powered radio or TV and extra batteries
  - Flashlight and extra batteries
  - First aid kit and first aid manual
  - Supply of prescription medications or copies of prescriptions
  - Credit card and cash
  - Personal identification
  - An extra set of car keys
  - Matches in a waterproof container
  - Signal flare
  - Special items (e.g., diapers or formula, hearing aid batteries, spare wheelchair battery, spare eyeglasses, or other items for physical needs)
- **Evacuation Supplies—Basic kit plus the following, packed in a portable carrier (e.g., duffel), labeled, and stored in a convenient place:**
  - Water and nonperishable food for 3 days
  - Kitchen accessories (can opener, utensils, utility knife, cooking fuel, bleach to treat drinking water, sugar, salt, pepper, plastic bags, aluminum foil)
  - Change of clothing and footwear
  - Weather protection (gloves, jacket, raincoat, sunscreen, hat, etc.)
  - Sanitation/hygiene items (toothbrush, toothpaste, soap, comb, plastic bags, tissues, sanitary napkins)
  - Local map marked with evacuation routes
  - Communication kit (contact numbers, cell phone or coins for pay phone)
  - Blankets or sleeping bags
  - Tools and other items (paper and pencil, needles and thread, pliers, shutoff wrench, shovels, tape, medicine dropper, whistle, plastic sheeting, fire extinguisher, emergency preparedness manual, tube tent, compass)
  - Entertainment (e.g., books and games)
- **Home Disaster Supplies—Basic kit and evacuation kit plus the following:**
  - A 3-day supply of food and water (1 gallon per person per day) and nonperishable food
  - Additional blankets and sleeping bags
  - Wrench to turn off utilities, stored near shutoff valves

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## **Evacuation vs. In-Place Sheltering**

When a disaster occurs or threatens, should you stay or go?

People who are near an incident site must evaluate the situation and determine whether to evacuate or shelter in place. The decision is not always easy.

If time and location allow, listen to the Emergency Alert System (EAS) for instructions from emergency management professionals who are evaluating the incident.

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### **Evacuation**

To be prepared for evacuation, you should:

- Keep your evacuation supplies in a convenient location. Some people keep evacuation supplies in the car trunk.
  - Keep your gas tank full or nearly full—especially during high-risk months for seasonal hazards.
  - If you don't own a car, make transportation arrangements with friends or local government.
  - Know your school's plan for your children if there is an evacuation.
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### **Sheltering in Place**

In some situations, staying inside may be safer than evacuation. Know what to do for hazards in your area.

- Select a safe room—an interior room with no (or few) windows. If possible, choose a room with a toilet, water, and phone.
  - Have the home disaster supply kit ready.
  - Have water, food, snacks, books, and supplies to make the situation more comfortable.
  - Know warning systems and where to get information (NOAA Weather Radio).
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### **Procedures for Sheltering in Place**

Specific procedures for sheltering in place vary, depending on the hazard. Read guidelines for hazards in your area. General guidelines include the following:

- Take the disaster supply kit to the safe room.
- Tune into the Emergency Alert System (EAS) for additional instructions.
- Stay tuned to EAS to determine when it is safe to go outside.

## Resources

- **Are You Ready? A Guide to Citizen Preparedness**
    - General preparedness information and detailed hazard descriptions. Includes emergency planning and disaster supplies, evacuation, shelter, mitigation, animals in disaster, and recovering from disaster.  
[[www.fema.gov/areyouready](http://www.fema.gov/areyouready)]
  - **Ready.gov**
    - Department of Homeland Security website that provides guidelines and planning tools for terrorist incidents, including chemical, biological, radiological, and explosive incidents.  
[<http://www.ready.gov/>]
  - **National Flood Insurance Program**
    - Information about flood hazards, mitigation, and flood insurance. Access to local flood maps.  
[[www.fema.gov/nfip](http://www.fema.gov/nfip)]
  - **Talking About Disasters**
    - Safety information for the public. Includes mitigation strategies and emergency preparedness information.  
[<http://www.fema.gov/rrr/talkdiz/>]
  - **National Fire Protection Association**
    - Information on fire prevention activities and disaster preparations.  
[[www.nfpa.org](http://www.nfpa.org)]
  - **The American Red Cross**
    - Links to local Red Cross offices. Information on what to do after a disaster. Disaster-specific information is provided.  
[<http://www.redcross.org/services/disaster/>]
  - **FirstGov**
    - Gateway to State websites. Links to be ready for emergencies, business and industry emergency preparedness, emergency planning for schools, environmental emergencies, terrorism planning information, publications on how to prepare for natural disasters, and other resources.  
[<http://www.firstgov.gov/Citizen/Topics/Family.shtml#government>]
  - **U.S. Geological Survey**
    - Information on probabilities of various disasters, by state.  
[[www.usgs.gov](http://www.usgs.gov)]
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### **Lesson Summary**

Before disaster strikes, you should:

- Identify potential hazards in the home and workplace.
- Take steps to mitigate those hazards.
- Develop and practice a family disaster plan.
- Assemble a disaster supply kit.

Immediately after a disaster, you may need to shut off utilities to mitigate fire risk.

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